| Index of Cla | ims | _                            | App<br>10/8<br>Exam<br>Fen |
|--------------|-----|------------------------------|----------------------------|
| √ Rejected   |     | (Through numera<br>Cancelled | l)                         |
| = Allowed    | +   | Restricted                   |                            |

| Application/Control No. | Applicant(s)/Patent under Reexamination |  |  |  |  |  |  |  |  |
|-------------------------|---|--|--|--|--|--|--|--|--|
| 10/824,338              | KRULL, MARK A.                          |  |  |  |  |  |  |  |  |
| Examiner                | Art Unit                                |  |  |  |  |  |  |  |  |
| Fenn C. Mathew          | 3764                                    |  |  |  |  |  |  |  |  |

| -[ | (Through numeral)<br>Cancelled | N | Non-Elected  | A | Appeal   |  |  |  |
|----|--------------------------------|---|--------------|---|----------|--|--|--|
|    | Restricted                     | J | Interference | 0 | Objected |  |  |  |

| Clain           | ~ 1      | Date         |                |  |          |              |               |  |  | Claim Date |          |               |                    |          |                 |          |          |          | ٦        | (        | Cla      | im I | n Date    |          |          |          |          |                                     |          |          |          |          |          |
|-----------------|----------|--------------|----------------|--|----------|--------------|---------------|--|--|------------|----------|---------------|--------------------|----------|-----------------|----------|----------|----------|----------|----------|----------|------|-----------|----------|----------|----------|----------|-------------------------------------|----------|----------|----------|----------|----------|
| Cian            | _        |              |                | $\neg$   | _        | Jali         | <u>-</u> -    | —т   |  | ⊣          | <u> </u> | $\overline{}$ | ┪                  | П        | Т               | Ť        | T        | 7        | Т        | $\neg$   | ٦.       | 1    | <u></u>   |          | $\neg$   | П        |          | T                                   |          |          | Т        | -1       | ┪        |
| _   '           | ๏        | 30 52/1      |                |  |          |              |               |  | 1  | - 1        | =        | Original      | 1                  | ll       |                 | ١        | - 1      | - 1      |          | - 1      | - 1      | - 1  | _         | Original |          |          |          |                                     |          |          |          | - 1      |          |
| Final           | 튭        |              |                |  |          |              |               |  | 1  | - 1        | Final    | 븁             | 1                  | ll       | - 1             | - 1      | ı        | - 1      |          | ı        | -        | ŀ    | Final     | 5        | ١        | ļ        |          |                                     |          |          | -        | - 1      |          |
| ᄪᆝ              | Original |              |                |  |          |              |               |  |  |            | L.       | 18            | 1                  | ll       |                 |          | ı        | - 1      | ı        | - 1      | -        | ŀ    | ╙         | δl       | - 1      | - 1      | i        |                                     |          |          | ı        | - 1      |          |
|                 | _        | ٣            |                |  |          |              |               |  |  |            |          |               |                    | Ш        | _               | _        |          |          | _        |          | ┙        | ı    |           |          | _        | _        | _        |                                     | _        | _        | _        | 4        | _        |
|                 | 1        | <            | 11             |  |          |              |               |  | . 1  |            | 1        | 51            |                    |          |                 |          |          |          |          |          | ╛        |      |           | 101      |          |          |          |                                     |          |          |          | $\perp$  | _        |
| 5               | 2        |              | T              |  |          |              |               |  | П  | $\neg$     |          | 52            | 1-                 |          |                 |          |          |          |          |          |          |      |           | 102      |          |          |          |                                     |          |          |          |          |          |
|                 | 3        | П            |                |  | Г        | П            |               |  | $\Box$   | ヿ          |          | 53            | T                  |          | $\neg$          | ╗        | $\neg$   | $\neg$   | $\Box$   |          |          | - [  |           | 103      |          |          |          |                                     |          |          |          | $\neg$   | _]       |
|                 | 4        | 7            | +              | _  | $\vdash$ |              |               |  | $\neg$   | ヿ          |          | 54            |                    | П        | ヿ               | ╗        | $\neg$   | ╗        | ヿ        | ┪        | ٦        | - 1  |           | 104      | $\neg$   |          |          |                                     |          |          | П        | П        | $\neg$   |
|                 | 5        | •            | +              | _  |          | Н            | М             |  | $\vdash$   | $\dashv$   |          | 55            | +-                 |          |                 | ┪        | $\neg$   | 7        | $\neg$   | 7        | 7        | ı    |           | 105      | $\neg$   | 一        |          |                                     |          |          |          | $\neg$   | $\neg$   |
|                 | 6        | -            | +              | -  | ⊢        | 1            | Н             |  | $\vdash$   | ⊣.         |          | 56            | 十                  |          | _               | ᅥ        | -        | ┪        | _        | $\neg$   | ┪        | 1    |           | 106      | ┪        | ┪        |          |                                     |          |          | ┪        | ╗        | ヿ        |
|                 | 7        | -            | Н              | ⊢  | -        | ⊢            | Н             |  | -  | $\dashv$   | <b>-</b> | 57            | +                  | Н        | $\dashv$        | ┪        | 十        | -        | ┪        | ╅        | ┪        | 1    |           | 107      | _        | ┪        | $\neg$   | _                                   |          |          | ┪        | ᅥ        | ヿ        |
|                 |          | _            | H              | -  | -        | ├            | Н             | Н  | $\vdash$   | $\dashv$   |          | 58            | +                  | Н        | -               |          | $\dashv$ | $\dashv$ | -+       | +        | $\dashv$ | 1    |           | 108      | -        | ╗        | $\neg$   |                                     | $\dashv$ |          | ᅥ        | -1       | ᅥ        |
|                 | 8        |              | Щ.             | ļ  | -        | $\vdash$     | Н             | _  | $\vdash$   | $\dashv$   |          |               | +-                 | Н        | -               |          | -+       | $\dashv$ | -        | ┰        | -        |      | -         | 109      | -        | -        | _        |                                     | $\dashv$ | $\dashv$ | -        | {        | $\dashv$ |
|                 | 9        |              | 4              |  | _        | ⊢            | -             |  | ⊢  | -          | -        | 59            | +-                 | Н        | $\dashv$        |          | -        |          | $\dashv$ | -        | -        | i    | -         | 110      | -        | $\dashv$ | -        | -                                   | $\dashv$ | -        | -        | ┪        | $\dashv$ |
|                 | 10       |              | Щ.             | L  | <b>!</b> | <b> </b>     | Ш             | Ш  | $\sqcup$   | -          |          | 60            | +                  | $\vdash$ | -1              | $\dashv$ | -        | -        | -        | +        | $\dashv$ |      | $\vdash$  |          |          | -        |          |                                     | Н        | $\dashv$ | -        |          | $\dashv$ |
|                 | 11       |              | Щ.             | <u> </u>   | igspace  | <b>L</b>     | Ш             | Ш  | Ш  |            | -        | 61            | +-                 | $\vdash$ |                 | 4        | $\dashv$ | _        | -+       | +        | $\dashv$ |      |           | 111      | -        |          |          | Н                                   | Н        | $\dashv$ | -        |          | $\dashv$ |
| 11              | 12       |              | Ш              |  | _        | _            | Ш             |  | Ш  | _          |          | 62            | $\bot$             | Ш        | _               | _        | $\sqcup$ | _        | _        | 4        | 4        |      |           | 112      | _        | _        | _        | _                                   | $\vdash$ | _        | $\dashv$ | -1       | $\dashv$ |
|                 | 13       |              | Ш              | L  | L        |              |               |  | Ш  | _          |          | 63            |                    | Ш        | $\sqcup$        | _        |          | _        | Ц        | 4        | _        |      |           | 113      | _        | $\dashv$ | _        | Щ                                   | Ш        |          | _        | _        | _        |
| 14              | 14       |              |                |  |          |              |               |  |  |            |          | 64            | $oldsymbol{\perp}$ | Ш        |                 |          |          |          | $\perp$  | $\bot$   | $\Box$   |      |           | 114      |          | Ц        |          |                                     | Ш        |          | Ц        |          | _        |
| 15              | 15       |              | $\sqcap$       |  |          |              |               |  |  |            |          | 65            |                    | $\Box$   |                 |          |          |          |          |          | ╝        |      |           | 115      |          |          |          | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ |          |          | Ц        |          | _        |
|                 | 16       |              | 7              |  | П        | Г            |               |  |  |            | [        | 66            | T                  |          |                 |          |          |          |          |          | ╝        |      |           | 116      |          |          |          |                                     |          |          |          |          | _        |
|                 | 17       |              |                |  |          | Π            |               |  | П  |            |          | 67            | Т                  | ГП       |                 |          |          |          |          |          |          |      |           | 117      |          |          |          |                                     |          |          |          |          |          |
|                 | 18       |              | Г              |  |          | 1            | $\overline{}$ | Т  |  | $\neg$     |          | 68            | 1                  | П        |                 |          |          | П        | $\Box$   | $\neg$   | ٦        |      |           | 118      |          |          |          |                                     |          |          |          |          |          |
|                 | 19       | -            | H              |  | $\vdash$ | _            | Н             |  | H  | ┥.         | <u> </u> | 69            | +                  | М        | $\neg$          |          |          |          |          | 丁        | ٦        |      |           | 119      |          |          |          |                                     |          |          | П        |          |          |
|                 | 20       | $\vdash$     | ┝              | ┝  | $\vdash$ | ├-           | Н             | $\vdash$   | ┝┥   | ⊣.         | -        | 70            | +                  | Н        | _               |          | Н        | $\neg$   | $\neg$   | _        | ヿ        |      |           | 120      |          |          |          |                                     |          | _        |          | $\neg$   | $\neg$   |
|                 | 21       | -            | ⊢              | ┝  | ╁        | ┝            | H             | $\vdash$   | H  | $\dashv$   |          | 71            | +                  | $\vdash$ | -               | _        | $\Box$   | ᅦ        |          | 十        | ┪        |      |           | 121      |          | $\neg$   | _        | Г                                   |          |          |          | $\neg$   | $\neg$   |
|                 | 22       | ⊢            | ┝              | ┝  | ├-       | ├-           | -             | ⊢  | $\vdash$   | $\dashv$   |          | 72            | ╅                  | ╁        | $\dashv$        | $\neg$   | Н        |          |          | $\dashv$ | ᅥ        |      |           | 122      |          |          |          | Г                                   | _        | _        |          |          | $\neg$   |
|                 |          | ⊢            | -              | -  | ├-       | -            | Н             | $\vdash$   | <del>                                     </del> |            |          | 73            | ╁                  | $\vdash$ | $\dashv$        | -        | Н        | $\dashv$ | -        | 十        | ┥        | ı    |           | 123      | Н        | H        | _        | -                                   | М        | $\neg$   | $\dashv$ | ┪        | ヿ        |
|                 | 23       | ┝            | -              | ├—   | -        | -            | H             | -  | Н  |            |          | 74            | ╫                  | 1-1      | -               | -        | $\dashv$ | $\dashv$ | -        | $\dashv$ | -        | ı    | -         | 124      | Н        |          |          | $\vdash$                            | Н        |          | -        | $\neg$   | $\neg$   |
|                 | 24       | <u> </u>     |                | -  | ┢        | ⊢            | -             | $\vdash$   | ┝╼┤  |            |          | 75            | +-                 | ┨        | -               |          | $\dashv$ | -        | $\vdash$ | ┰        | $\dashv$ |      |           | 125      | Н        | -        |          | $\vdash$                            | Н        | _        | $\dashv$ | $\dashv$ | ⊣        |
|                 | 25       | <u> </u>     | -              | <u> </u>   | ⊢        | -            | Н             | $\vdash$   | ┝╌┤  |            | _        |               |                    | Н        | Н               |          | -        | -        | H        | -+       | $\dashv$ |      | -         | 126      | $\vdash$ | Н        |          | ┝                                   | -        | -        | -        | $\dashv$ | ᅥ        |
|                 | 26       | ļ            | <u> </u>       | ┡  | ┞        | ┞            | <u> </u>      | _  | ⊢⊣   |            | -        | 76            |                    | ↤        | $\dashv$        |          |          | -        | $\vdash$ |          | $\dashv$ |      |           | 127      | $\vdash$ | Н        |          | -                                   | Н        |          |          | $\dashv$ | $\dashv$ |
|                 | 27       |              | L.             | _  | L        | <del> </del> | _             | L  |  |            | <u> </u> | 77            | +                  | ┥        | Н               |          | $\dashv$ | -        | $\vdash$ | -        | $\dashv$ |      |           | 128      | Н        | Н        |          | H                                   | H        | Н        | $\dashv$ | $\dashv$ | $\dashv$ |
|                 | 28       | <u> </u>     | 乚              | ᆫ  | ┖        | <u> </u>     | L             | _  | Ш  | _          | ļ        | 78            | -                  | $\vdash$ | $\dashv$        | _        |          |          | $\vdash$ | -        | 4        |      |           | 120      | -        | Н        | -        | $\vdash$                            | -        | _        | -        | $\dashv$ | $\dashv$ |
|                 | 29       | _            | L              | _  | ᆫ        | L            |               |  | Ш  | <b>—</b>   | ļ        | 79            | 4                  | $\sqcup$ | $\sqcup$        | _        | _        | $\dashv$ | -        | -        | 4        |      |           | 129      | -        | Н        |          | ⊢                                   | $\vdash$ | -        | $\vdash$ | -        | $\dashv$ |
|                 | 30       | L            | L              | L  | 上        | L            | L             |  | Щ  | _          | ļ        | 80            | 4_                 | Ш        |                 | _        | Ш        | _        | -        | -        | 4        |      |           | 130      | Щ        | щ        | _        | <b> </b>                            | L        | <u> </u> | $\vdash$ |          | -1       |
|                 | 31       |              | L.             |  | L        | L            | Ш             |  | Ш  |            | <u> </u> | 81            | _                  | Ш        | Ц               | _        |          |          | Щ        | 4        | _        |      |           | 131      | _        | Щ        |          | <u> </u>                            | <u> </u> | _        |          | _        | -4       |
|                 | 32       | - 23         |                |  |          | L            |               |  | Ш  | _          | L        | 82            |                    | Ш        | Ц               |          | Щ        |          |          | _        | _        |      |           | 132      | $\vdash$ | Ш        |          | _                                   | <u> </u> | $\vdash$ |          | _        | 4        |
|                 | 33       |              |                |  |          |              |               |  |  |            | L        | 83            |                    |          |                 |          | Ш        |          |          | $\perp$  | ╝        |      |           | 133      |          | Щ        |          | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ | L        |          | Щ        | _        | _        |
|                 | 34       |              |                |  |          | Ĺ            | $\Box$        |  |  |            |          | 84            |                    |          | Ш               |          | Ш        |          | $\sqcup$ | _        | ╝        |      |           | 134      | Ш        | Ш        | _        | oxdot                               | L_       | _        | Ш        |          | $\Box$   |
|                 | 35       |              |                |  |          | Γ            |               |  |  |            |          | 85            | Ţ                  | $\prod$  | Ш               |          | Ш        |          | Ш        |          | ╝        |      |           | 135      | Ш        | Ш        |          | <u> </u>                            | <u> </u> |          | Ш        |          | Ш        |
|                 | 36       | Г            | Γ              |  | Г        | Π            |               |  |  |            |          | 86            | I                  | $[ \ ]$  |                 |          |          |          |          | _T       |          |      |           | 136      |          |          |          |                                     |          |          | Ш        |          |          |
|                 | 37       | T            | Г              | T  |          | Π            | Г             |  | П  |            |          | 87            | T                  | П        |                 |          |          |          |          | T        |          |      |           | 137      |          |          |          | Ĺ                                   |          |          |          |          |          |
|                 | 38       |              | T              | T  | 1        | T            | T             |  | П  | $\neg$     |          | 88            | T                  | П        | $\Box$          |          | П        |          |          |          | $\Box$   |      |           | 138      |          |          |          |                                     |          |          |          |          |          |
| -               | 39       | $\vdash$     | 1              | <u> </u>   | T        | Т            | $\vdash$      | <b> </b>   | П  | $\neg$     |          | 89            |                    | П        |                 |          | П        |          | $\Box$   | $\dashv$ | ヿ        |      |           | 139      |          |          |          | L                                   |          |          |          |          |          |
|                 | 40       | $\vdash$     | Н              | Т  | 1        | $\vdash$     | $\vdash$      |  | $\vdash$   | $\neg$     |          | 90            |                    | П        | М               |          | П        |          | П        | _        | $\neg$   |      |           | 140      |          |          |          |                                     |          |          |          |          |          |
|                 | 41       | ┰            | -              | Ι  | $\vdash$ | $\vdash$     | $\vdash$      | $\vdash$   | $\vdash$   | $\dashv$   |          | 91            | 1                  | П        | Н               | _        | П        |          | П        | ヿ        | ┪        |      |           | 141      |          | П        |          | Г                                   |          |          | П        |          | П        |
|                 | 42       | ╁╌           | -              | <del>                                     </del> | +        | +-           | ╁╴            | $\vdash$   | Н  | $\dashv$   | -        | 92            | +-                 | Н        | $\vdash$        | _        | Н        |          | $\vdash$ | $\dashv$ | ⊣        |      |           | 142      |          | П        |          | Т                                   |          |          | П        |          | П        |
| -               | 42       | $\vdash$     | <del> </del> - | $\vdash$   | +-       | $\vdash$     | $\vdash$      | $\vdash$   | ┯  | $\dashv$   |          | 93            |                    | $\vdash$ | $\vdash \vdash$ |          | Н        | _        | Н        | +        | ᅱ        |      |           | 143      | М        | Н        | -        | T                                   | Г        | Г        | $\vdash$ |          | $\sqcap$ |
|                 | 43       | +-           | -              | -  | +        | +            | -             | <del>                                     </del> | Н  | $\dashv$   |          | 94            |                    | ┥        | $\vdash$        | -        | Н        | -        | $\vdash$ | $\dashv$ | $\dashv$ |      |           | 144      |          | М        | $\vdash$ | $\vdash$                            | $\vdash$ |          | Н        |          | П        |
|                 | 45       | -            | -              | -  | 1        | $\vdash$     | -             |  |  |            | -        | 95            |                    |          |                 |          |          |          |          |          |          |      |           | 145      |          |          |          | -                                   |          |          | П        |          |          |
|                 |          | $\vdash$     | -              | -  | +-       | ₽            | +-            | -  | Н  | $\dashv$   | -        | 96            |                    | H        | H               |          | -1       | -        | $\vdash$ | $\dashv$ | $\dashv$ |      |           | 146      |          | Н        | -        | 1                                   | $\vdash$ |          | H        |          | Н        |
| $\vdash$        | 46       | ├-           | ├-             | ⊢  | +-       | ╀            | $\vdash$      | ├-   | Н  | $\dashv$   |          | 97            |                    | $\vdash$ | ┝┥              | _        | ┝┤       | _        | Н        | -        | $\dashv$ |      | <b></b> - | 147      | -        | Н        | ┢        | $\vdash$                            | $\vdash$ | -        | Н        | $\vdash$ | $\vdash$ |
|                 | 47       | ╀            | ⊢              | ₩  | ╀        | ╀            | ╁             | -  | Н  | $\dashv$   |          |               |                    | $\vdash$ | ⊢               | _        | -        | _        | $\vdash$ | ┵        | $\dashv$ |      |           | 148      | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$                            | ┰        | $\vdash$ | Н        | -        | ᅥ        |
| $\vdash \vdash$ | 48       | -            | $\vdash$       | ⊢  | ╀        | ╀            | <del> </del>  | ₽  | Н  | $\dashv$   | -        | 98            |                    | $\vdash$ | ⊢┤              |          | $\vdash$ | _        | Н        | -+       | $\dashv$ |      | ├─        | 149      | -        | Н        | $\vdash$ | ┼                                   | ⊢        | $\vdash$ | Н        | Н        | Н        |
|                 | 49       | <del> </del> | ⊢              | -  | ╄        | +-           | $\vdash$      | ₩  | ⊢  | $\dashv$   | <u> </u> | 99            |                    | +        | $\vdash$        |          | Н        |          | Н        | $\dashv$ | $\dashv$ |      | <b></b>   |          | -        |          | $\vdash$ | ├                                   | ⊢        | -        | Н        | Н        | Н        |
| Щ.              | 50       | 乚            | _              | _  | 上        |              |               | <u> </u>   | ш  |            | <u> </u> | 100           | <u> </u>           | L        | لـــا           |          | Щ        |          | ш        | _4       | لــ      |      |           | 150      | Ļ        | <u> </u> | _        |                                     |          |          | لــا     | _        | ل        |